

SIX SIGMA IMPROVES THROUGHPUT ON GOLD-STANDARD PRODUCT LINE

ABOUT M CUBED TECHNOLOGIES, INC. II-VI Incorporated (Two-Six, Inc.) and its divisions and subsidiaries utilize expertise in synthetic crystal materials growth, optics fabrication, and electronics component manufacturing to create high-tech products for a wide range of applications and industries. Founded in 1971, II-VI Incorporated is headquartered in Saxonburg, Pennsylvania, and maintains manufacturing facilities, distributors, and agents worldwide. A public company, II-VI has more than six thousand employees and is traded on the NASDAQ under the stock symbol IIVI. One of its subsidiaries, M Cubed Technologies, is based in Newark, Delaware, with 75 employees.

THE CHALLENGE. When M Cubed Technologies was looking to make process improvements, they instantly thought of the Delaware Manufacturing Extension Partnership (DEMPEP), part of the MEP National Network™. DEMPEP helped M Cubed to obtain its ISO certification in 2000, and has since worked with the company on numerous improvement opportunities. Concerned about inconsistent output on one of their product lines, M Cubed decided to send a quality engineer and production supervisor to participate in a Six Sigma class that DEMPEP was offering.

MEP CENTER'S ROLE. The Six Sigma class was project-based, and M Cubed chose to work on a more robust, high-performing process in order to increase on-time delivery percentage and shrink lead time for its gold-standard product. The quality engineer gained real-world, data-driven solutions to apply almost immediately to the product line. The training encouraged the use of a process monitor and chart recorder for data gathering to help identify improvement opportunities, and the quality engineer reduced production lead time and increased output on the product line by identifying and eliminating bottlenecks.

The product is no longer pulled out of production in mid-cycle, resulting in a quicker process with fewer shutdowns. The company took “waste” out of the process and increased value-added activity, improving the product flow and on-time delivery rate. M Cubed is looking to expand the improvements to product lines across the plant.

"The training we received has benefited the entire company. We are seeing good results and saving money, while meeting customer expectations. It has made us a better organization. One of the things we have learned is that in order to get from start to finish, you have to walk through the process as quickly and correctly as possible. We are rolling this initiative out to new product lines in order to ensure high levels of process and product performance."

-Tom Plystak, Quality Manager

RESULTS



Lead time for product line improved by **39%**



Reduced cycle time enabled equipment to be shared with other product lines



On-time delivery improved, achieving **100%** for several months

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